



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Moriceau, Hubert et al.

Appln. No.: 10/667,707

Filed: September 22, 2003

For: PROCESS FOR TRASFER OF A  
THIN FILM COMPRISING AN  
INCLUSION CREATION STEP

Examiner: Shamim Ahmed

Art Unit: 1765

Attorney Docket No: 9905-35

### INFORMATION DISCLOSURE STATEMENT

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, and more particularly in accordance with 37 C.F.R. §1.97(d), Applicants hereby cite the following reference(s):

No.	Date of Publication	Patentee/Applicant/Assignee
4,254,590	3/10/1981	Eisele et al.
5,300,788	4/5/1994	Fan et al.
5,400,458	3/28/1995	Rambosek
5,811,348	9/22/1998	Matushita et al.
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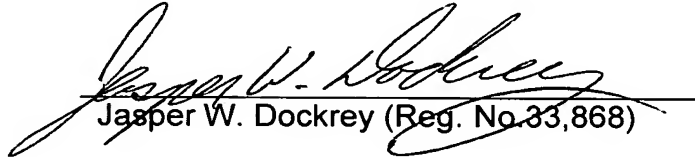
Bruehl et al., [Vol. 99-1] Meeting Abstract No. 333, "Single-crystal semiconductor layer delamination and transfer through hydrogen implantation," <i>The 195th Meeting of The Electrochemical Society</i> , May 2-6, 1999, Seattle, Washington
Camperi-Ginestet et al., "Alignable Epitaxial Liftoff of GaAs Materials with Selective Deposition Using Polyimide Diaphragms", <i>IEEE Transactions Photonics Technology Letters</i> , Vol. 3, No. 12, December 1991, pp. 1123-1126
Cerofolini et al. "Ultradense Gas Bubbles in Hydrogen-or-Helium-Implanted (or Co-implanted) Silicon", <i>Materials Science and Engineering</i> , B71, 2000, pp. 196-202
Demeester, et al., "Epitaxial Lift-off and its Applications", <i>Semicond. Sci. Technol.</i> , Vol. 8, 1993, pp. 1124-1135
DiCioccio et al., "III-V layer transfer onto silicon and applications", <i>Phys. Stat. Sol. (a)</i> , Vol. 202, No. 4., 2005, pp. 509-515/DOI 10.1002/pssa.200460411
Feijoo et al., "Prestressing of Bonded Wafers", Vol. 92-7 1992 pp. 230-238
Feng et al., "Generalized Formula for Curvature Radius and Layer Stresses Caused by Thermal Strain in Semiconductor Multilayer Structures", <i>J. Appl. Phys.</i> , Vol. 54, No. 1, 1983, pp. 83-85
Hamaguchi, et al., "Novel LSI/SOI Wafer Fabrication Using Device Layer Transfer Technique" <i>Proc. IEDM</i> , 1985, pp. 688-691
Henttinen et al. "Mechanically induced Si Layer Transfer in Hydrogen-Implanted Si-Wafers", <i>American Institute of Physics</i> , Vol. 76, No. 17, April 2000, pp. 2370-2372
Kucheyev et al., "Ion implantation into GaN", <i>Materials Science and Engineering</i> , 33, 2001, pp. 51-107
Liu et al., "Ion implantation in GaN at liquid-nitrogen temperature: Structural characteristics and amorphization," <i>Physical Review B of The American Physical Society</i> , Vol. 57, No. 4, 1988, pp. 2530-2535
Moriceau et al., [Vol. 99-1] Meeting Abstract No. 405, "A New Characterization Process Used to Qualify SOI Films," <i>The 195th Meeting of The Electrochemical Society</i> , May 2-6, 1999, Seattle, Washington.
Pollentier et al., "Fabrication of High-Radiance LEDs by Epitaxial Lift-off" <i>SPIE</i> , Vol. 1361, 1990, pp. 1056-1062
Suzuki et al., "High-Speed and Low Power n <sup>+</sup> -p <sup>+</sup> Double-Gate SOI CMOS", <i>IEICE Trans. Electron.</i> , Vol. E78-C, No. 4, April 1995, pp. 360-367
Timoshenko, S., "Analysis of Bi-Metal Thermostats", <i>J. Opt. Soc. Am.</i> , 11, 1925, pp. 233-256
Wong et al., "Integration of GaN Thin Films with Dissimilar Substrate Materials by Pd-In Metal Bonding and Laser Lift-off", <i>Journal of Electronic Materials</i> , Vol. 28, No. 12, 1999, pp. 1409-1413
Yun et al., "Fractional Implantation Area Effects on Patterned Ion-Cut Silicon Layer Transfer," Dept. of Electrical Eng. And Computer Sciences, University of California, Berkeley, CA 94720, USA, 1999 IEEE International SOI Conference, Oct. 1999, pg. 129-30
Yun et al., "Thermal and Mechanical Separations of Silicon Layers from Hydrogen Pattern-Implanted Wafers," <i>Journal of Electronic Materials</i> , Vol. No. 36, No. 8 2001

Applicants are enclosing Form PTO-1449 (four pages), along with a copy of each listed reference for which a copy is required under 37 C.F.R. §1.98(a)(2). As each of the listed references is in English, no further commentary is believed to be necessary, 37 C.F.R §1.98(a)(3). Applicants respectfully request the Examiner's consideration of the above reference(s) and entry thereof into the record of this application.

By submitting this Statement, Applicants are attempting to fully comply with the duty of candor and good faith mandated by 37 C.F.R. §1.56. As such, this Statement is not intended to constitute an admission that any of the enclosed references, or other information referred to therein, constitutes "prior art" or is otherwise "material to patentability," as that phrase is defined in 37 C.F.R. §1.56(a).

Respectfully submitted,

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Date November 3, 2006

  
Jasper W. Dockrey (Reg. No. 33,868)



FORM PTO-1449	SERIAL NO. 10/667,707	CASE NO. 9905/35
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE September 22, 2003	GROUP ART UNIT 1765
(use several sheets if necessary)	APPLICANT(S): Moriceau et al.	

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	C1	4,254,590	3/10/1981	Eisele et al.		
	C2	5,300,788	4/5/1994	Fan et al.		
	C3	5,400,458	3/28/1995	Rambosek		
	C4	5,811,348	9/22/1998	Matushita et al.		
	C5	5,877,070	3/2/1999	Goesele et al.		
	C6	5,909,627	6/1/1999	Egloff		
	C7	5,953,622	9/14/1999	Lee et al.		
	C8	5,994,207	11/30/1999	Henley et al.		
	C9	6,048,411	4/11/2000	Henley et al.		
	C10	6,054,370	4/25/2000	Doyle		
	C11	6,127,199	10/3/2000	Inoue		
	C12	6,146,979	11/14/2000	Henley et al.		
	C13	6,150,239	11/21/2000	Goesele et al.		
	C14	6,225,192	5/1/2001	Aspar et al.		
	C15	6,271,101	8/7/2001	Fukunaga		
	C16	6,303,468	10/16/2001	Aspar et al.		
	C17	6,323,108	11/27/2001	Kub et al.		
	C18	6,346,458	2/12/2002	Bower		
	C19	2002/0025604	2/28/2002	Tiwari		
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	C21	2002/0153563	10/24/2002	Ogura		
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	C26	6,593,212	7/15/2003	Kub et al.		
	C27	2003/0134489	7/17/2003	Schwarzenbach et al.		
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	C33	6,770,507	8/3/2004	Abe et al.		
	C34	6,946,365	9/20/2005	Aspar et al.		

## FOREIGN PATENT DOCUMENTS

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449	SERIAL NO. 10/667,707	CASE NO. 9905/35
<b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>	FILING DATE September 22, 2003	GROUP ART UNIT 1765
(use several sheets if necessary)		APPLICANT(S): Moriceau et al.

EXAMINER INITIAL		DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
	C35	EP 0 293 049 B1	9/29/1993	Europe		
	C36	EP 0 410 679 A1	1/30/1991	Europe		
	C37	EP 0 786 801B1	6/18/2003	Europe		Abstract
	C38	EP 0 793 263 A2	9/3/1997	Europe		
	C39	EP 0 807 970 A1	11/19/1997	Europe		Abstract
	C40	EP 0 902 843 B1	3/29/2000	Europe		Abstract
	C41	EP 0 925 888 B1	11/10/2004	Europe		
	C42	EP 0 938 129 A1	8/25/1999	Europe		
	C43	EP 0 994 503 A1	4/19/2000	Europe		Abstract
	C44	EP 1 014 452 B1	5/3/2006	Europe		
	C45	EP 1 050 901 A2	11/8/2000	Europe		
	C46	FR 2 681 472 A1	3/19/1993	France		Abstract
	C47	FR 2 748 850 A1	11/21/1997	France		Abstract
	C48	FR 2 748 851 A1	11/21/1997	France		Abstract
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	C50	FR 2 767 416 A1	2/19/1999	France		Abstract
	C51	FR 2 773 261 A1	7/2/1999	France		Abstract
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	C53	FR 2 781 925 A1	2/4/2000	France		Abstract
	C54	FR 2 796 491 A1	1/19/01	France		Abstract
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	C58	JP 62265717	11/18/1987	Japan		Abstract
	C59	JP 01004013	09/01/1989	Japan		Abstract
	C60	JP 7302889	11/14/1995	Japan		Abstract
	C61	JP 11045862	2/16/1999	Japan		Abstract
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	C63	JP 11087668	3/30/1999	Japan		Abstract
	C64	JP 11233449	8/27/1999	Japan		Abstract
	C65	WO 99/08316 A1	2/18/1999	WIPO		Abstract
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	C74	WO 2004/044976	5/27/2004	WIPO	Abstract

EXAMINER INITIAL	OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.				
	C75	Agarwal et al "Efficient production of Silicon-on-insulator films by co-implatation of HE <sup>+</sup> with H <sup>+</sup> ", <i>Applied Physics Letter</i> , American Institute of Physics, Vol. 72, No. 9, March 1998, pp. 1086-1088			
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	C77	Camperi-Ginestet et al., "Alignable Epitaxial Liftoff of GaAs Materials with Selective Deposition Using Polyimide Diaphragms", <i>IEEE Transactions Photonics Technology Letters</i> , Vol. 3, No. 12, December 1991, pp. 1123-1126			
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	C79	Demeester, et al., "Epitaxial Lift-off and its Applications", <i>Semicond. Sci. Technol.</i> , Vol. 8, 1993, pp. 1124-1135			
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	C81	Feijoo et al., "Prestressing of Bonded Wafers", Vol. 92-7 1992 pp. 230-238			
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